

## CLAIMS

What is claimed is:

- 5                   1. A method of defining header field compression for a data packet connection, the method comprising
  - defining a context for a compressor and decompressor as one parameter of the connection for controlling the operation of said compressor and decompressor,
  - 10               defining a length for a context identifier used in identifying data packet connections on data transmission between the compressor and decompressor, which length defines the maximum number of compressed data packet connections transmitted on one connection,
  - identifying each data packet connection by its own context identifier, and
  - 15               defining the parameters of the connection in such a manner that at least the number of header fields of data packet connections allowed by the length of the defined context identifier can be compressed despite the fact that the number of data packet connections allowed by said context identifier
  - 20               length is exceeded.
- 25                   2. A method as claimed in claim 1, further comprising
  - reserving at least one value of the length of the defined context identifier for an uncompressed data flow.
- 30                   3. A method as claimed in claim 1, further comprising
  - controlling the compression by a convergence protocol layer of a mobile system, and
  - directing the mobile system, in response to exceeding the number of data packet connections allowed by the context identifier length, to re-define the parameters of a radio bearer in such a manner that the new value of the context identifier length enables the compression of the header fields of all data packet connections

4. A method as claimed in claim 3, further comprising  
using values defined for data packet identifiers of the convergence  
protocol layer to define the new value for the context identifier length.

5 5. A method as claimed in claim 1, further comprising  
controlling the compression by the convergence protocol layer of  
the mobile system,

signalling the maximum number of simultaneous data packet  
connections defined for each radio bearer to the mobile system entity which,  
10 when establishing a new data packet connection, decides which radio bearer  
it will be associated with, and

directing the mobile system, in response to exceeding the number  
of data packet connections allowed by the context identifier length, to re-  
define the radio bearer parameters in such a manner that the new value of the  
15 context identifier length enables the compression of the header fields of all  
data packet connections

6. A method as claimed in claim 1, further comprising  
controlling the compression by the convergence protocol layer of  
20 the mobile system,

signalling the maximum number of simultaneous data packet  
connections defined for each radio bearer to the mobile system entity which,  
when establishing a new data packet connection, decides which radio bearer  
it will be associated with, and

25 directing the mobile system, in response to exceeding the number  
of data packet connections allowed by the maximum value of the context  
identifier length, to define a new radio bearer for the extra data packet  
connections.

30 7. A method as claimed in claim 1, further comprising  
controlling the compression by the convergence protocol layer of  
the mobile system,

directing the convergence protocol layer or the compressor in it, in  
response to exceeding the number of data packet connections allowed by the  
35 maximum value of the context identifier length, to transmit the extra data  
packet connections without header field compression.

8. A method as claimed in claim 7, further comprising attaching to said extra data packet connections an identifier, on the basis of which the data packets are received without decompression.

5           9. A method as claimed in claim 1, further comprising controlling the compression by the convergence protocol layer of the mobile system, and directing the convergence protocol layer, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length, to define for the data packet connections several link-level connections to which the data packet connections are allocated.

10           10. A method as claimed in claim 1, further comprising controlling the compression by the convergence protocol layer of the mobile system, and directing the convergence protocol layer, in response to exceeding the number of data packet connections allowed by the maximum value of the context identifier length, to reject the extra data packet connections.

15           11. A method as claimed in claim 3, wherein the terminal limits the number of simultaneous data packet connections to be smaller than the number of data packet connections allowed by the maximum value of the context identifier length

20           12. A header field compression system comprising a compressor and decompressor, a context configured to be defined for the data packet connection between the compressor and the decompressor as one parameter of the connection, which context controls the operation of the compressor and the decompressor,

25           a context identifier configured to identify the data packet connections, for which context identifier a length is configured to be defined, said length defining the maximum number of compressed data packet connections transmitted on one connection between the compressor and decompressor,